UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,590	12/18/2001	Seok Su Lee	HI-0047	6170

34610 7590 05/14/2007	**EXAMINER**
KED & ASSOCIATES, LLP	NGUYEN, DAVID Q
P.O. Box 221200	
Chantilly, VA 20153-1200	

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
05/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Office Action Summary	Application No.	Applicant(s)
		10/017,590	LEE, SEOK SU
		Examiner	Art Unit
		David Q. Nguyen	2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 February 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-26</u> is/are pending in the application.

    4a) Of the above claim(s) <u>23-26</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-22</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>06/24/04</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 1-22 have been considered but are moot in

view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 1,13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shah

(US 6,029,065) in view of Hansson (WO 98/38820).

Regarding claim 1, Shah discloses a method for downloading information in a wireless

system (see abstract), comprising: downloading the information to at least one mobile station

through a paging channel (see abstract and col.4, lines 1-31 and col. 7, line 45 to col. 8, line 25),

the at least one mobile station storing the information (see abstract and col.4, lines 1-31); and

resetting the at least one mobile station using the stored information (see col. 8, line 59 to col. 9,

line 27 and col. 7, line 45 to col. 8, line 25; updating feature codes) and reporting a downloading

result from the at least one mobile station to the base station (see col. 7, line 45 to col. 8, line 25,

col. 8, lines 5-25). Shah does not disclose communicating a request for a download operation

from a base station controller to a base station. However, Hansson discloses communicating a

request for a download operation from a base station controller to a base station (see page 2, line

29 to page 3, line 2 and page 3, lines 20-22; and fig. 1). Therefore, it would have been obvious to

one of ordinary skill in the art at the time the invention was made to provide the above teaching

of Hassan to Shah in order to update new version of the software and control the process for

downloading the new software into the cellular phone.

Regarding claim 13, the method of Shah in view of Hasson further discloses wherein the

information transmitted from the base station to the at least one mobile station is transmitted

through the paging channel according to a message queuing method (see abstract; and col.4, lines

1-31 and col. 7, line 45 to col. 8, line 25 and col. 7, lines 45-55).

Referring to claim 15, Shah discloses a method of communicating information (see

abstract), comprising: storing the data messages in each of the distributed terminals (see abstract

and col.4, lines 1-31 and col. 7, line 45 to col. 8, line 25); and resetting an operation of the

distributed terminals based on the stored data messages (see col. 8, line 59 to col. 9, line 27 and

col. 7, line 45 to col. 8, line 25; updating feature codes), wherein the common terminal

communicates each of the data messages to all of the distributed terminals simultaneously

through a paging channel (see abstract and col.4, lines 1-31 and col. 7, line 45 to col. 8, line 25).

Shah does not disclose communicating data messages from a common terminal to distributed

terminals. However, Hansson discloses communicating data messages from a common terminal

to distributed terminals (see page 2, line 29 to page 3, line 2 and page 3, lines 20-22; and fig. 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to provide the above teaching of Hassan to Shah in order to update new version of the

software and control the process for downloading the new software into the cellular phone.

3.   Claims 2-7,11-12,14,20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Shah (US 6,029,065) in view of Hansson (WO 98/38820) and further in view of Criss et al.

(US 6308061).

Referring to claim 2, the method of Shah in view of Hasson discloses downloading

messages through a paging channel of a wireless system (see abstract of Shah). Shah does not

disclose communicating a downloading start message to a plurality of mobile stations through

the paging channel at the same time; and communicating a downloading response signal of the

plurality of mobile stations to the base station controller. However, Criss et al. disclose

communicating a downloading start message to a plurality of mobile stations through a message

channel at the same time (col. 21, lines 23-34, the file field includes the contents of the file, file

downloaded to terminal; file transmitted as a message, col 11, lines 46-52, one or more mobile

terminals); communicating a downloading response signal of the plurality of mobile stations to

the base station controller (col 13, lines 55-64, after an actual file is downloaded and stored - the

terminal generates another File Request Packet, thus indicating through the base station that the

file has been downloaded; col 11, lines 46-52, one or more mobile terminals). Therefore, it

would have been obvious to one of ordinary skill in the art at the time the invention was made to

provide the above teaching of Cris et al. to Shah in view of Hansson in order to avoid to reduce

transferring data rate in traffic channels.

Regarding claim 3, the method of Shah in view of Hasson and further in view of Criss et

al also disclose wherein the downloading start message includes information of a version of

software to be downloaded to the plurality of mobile stations, a size of a file, and a hardware

type (see Criss et al; col 21, lines 23-34, the file field includes the contents of the file, file

downloaded to terminal; col 20, lines 55-60, version identifier, required memory, file type; col 2, lines 5-10, software upgrade for obsolete hardware; col 9, lines 60-65, each entry included hardware address of mobile terminal).

Regarding claim 4, the method of Shah in view of Hasson does not disclose wherein a plurality of mobile stations respectively receiving the information according to a software version and a hardware type contained in a downloading start message. However, Criss discloses a plurality of mobile stations respectively receiving the information according to a software version and a hardware type contained in a downloading start message (col 2, lines 51-54, software upgrades; col 11, lines 46-52, one or more mobile terminals; col 19, lines 60-65, hardware address field). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Cris et al. to Shah in view of Hansson in order to avoid to update new application to the mobile stations.

Regarding claim 5, the method of Shah in view of Hasson discloses the method of claim 1, further comprising: communicating data messages downloaded from the base station controller to the at least one mobile station, via the base station (see page 2, line 29 to page 3, line 2 and page 3, lines 20-22; and fig. 1 of Hasson); sequentially storing within the at least one mobile station, the downloaded data messages from the base station (see abstract and see page 2, line 29 to page 3, line 2 and page 3, lines 20-22; and fig. 1 of Hasson). the method of Shah in view of Hasson does not disclose communicating a downloading end message from the base station to the at least one mobile station, when the communication of the data messages is complete; determining with the at least one mobile station, whether the downloaded data messages are received with a normal state; and resetting the at least one mobile station, if the

respective downloaded data messages are received with the normal state. However, Criss

discloses communicating a downloading end message from the base station to the at least one

mobile station, when the communication of the data messages is complete (col 15, lines 58-65,

File Packet is interpreted as download end message as process ends on its reception by mobile

station); determining with the at least one mobile station, whether the downloaded data messages

are received with a normal state (col 15, lines 505-55, if file packet containing requested files is

received within predetermined response period); and resetting the at least one mobile station, if

the respective downloaded data messages are received with the normal state (col 14, lines 55-60,

reset). Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to provide the above teaching of Cris et al. to Shah in view of Hansson in

order to assure that all the mobile stations are updated new applications or features when they

become available.

Regarding claims 6-7, the method of Shah in view of Hasson and further in view of Criss

et al also disclose wherein the at least one mobile station stores the downloaded data messages in

a different memory position then that used to store an existing software (see Criss, col 14, lines

45-50, fail safe mode) and the base station resets the at least one mobile station using the stored

data messages when the downloaded data messages are received with the normal state (see Criss,

col 14, lines 55-60, reset); wherein the base station resets the at least one mobile station using the

downloaded data messages when the downloaded data messages are received with the normal

state (col 14, lines 55-60, reset).

Referring to claims 11-12, the method of Shah in view of Hasson discloses

communicating a location register message from the at least one mobile station to the base

station after resetting the at least one mobile station (see col. 8, line 59 to col. 9, line 27 and col.

7, line 45 to col. 8, line 25 of Shah). the method of Shah in view of Hasson does not disclose

determining the downloading result during a predetermined time based on the location register

message from the at least one mobile station; and reporting the downloading result to the base

station controller; wherein the location register message includes a version of a current software

and a hardware type. However, Criss et al discloses determining the downloading result during a

predetermined time based on the location register message from the at least one mobile station;

and reporting the downloading result to the base station controller (col 13, lines 55-64, after an

actual file is downloaded and stored - the terminal generates another File Request Packet, thus

indicating through the base station that the file has been downloaded); wherein the location

register message includes a version of a current software and a hardware type (col 2, lines 51-54,

software upgrades; col 11, lines 46-52, one or more mobile terminals; col 19, lines 60-65,

hardware address field). Therefore, it would have been obvious to one of ordinary skill in the art

at the time the invention was made to provide the above teaching of Cris et al. to Shah in view of

Hansson in order to assure that all the mobile stations are updated new applications or features

when mobile station is roaming to a visited network.

Regarding claim 14, the method of Shah in view of Hasson and further in view of Criss et

al also further discloses wherein the information transmitted from the base station to the at least

one mobile station is transmitted through the paging channel according to a message queuing

method (see abstract; and col.4, lines 1-31 and col. 7, line 45 to col. 8, line 25 and col. 7, lines

45-55 of Shah).

Regarding claim 20, the method of Shah in view of Hansson does not disclose wherein the common terminal collects the identified data messages from the distributed terminals for a predetermined period of time However, Criss et al. discloses wherein the common terminal collects the identified data messages from the distributed terminals for a predetermined period of time (col 15, lines 15-20, processor determines if File Name Packet has been received from the host computer in response to the Version Response Packet within a predetermined response period). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Criss to the method of Shah in view of Hansson in order to update new application to the mobile stations and assure that all the mobile stations are updated new applications or features when mobile station is roaming to a visited network.

Regarding claim 21, the method of Shah in view of Hansson does not disclose communicating a request from a system controller to the common terminal to download a file to the distributed terminals; communicating a download start message from the common terminal to the distributed terminals; and communicating a download response message from the common terminal to the system controller indicating a status of a download operation, wherein the download start message includes an identification of a file version, a file size, and a hardware type. However, Criss et al discloses communicating a request from a system controller to the common terminal to download a file to the distributed terminals (col 7, lines 22-44, mobile terminal communicates with host computer, interpreted as being the system controller, via base station, interpreted as being the common terminal; host computer transmits software upload request to mobile terminal via base station); communicating a download start message from the

common terminal to the distributed terminals (col 21, lines 23-34, the file field includes the

contents of the file, file downloaded to terminal; file transmitted as a message, hence paging

channel; col 1 1, lines 46-52, one or more mobile terminals); and communicating a download

response message from the common terminal to the system controller indicating a status of a

download operation (col 13, lines 55-64, after an actual file is downloaded and stored - the

terminal generates another File Request Packet, thus indicating through the base station that the

file has been downloaded), wherein the download start message includes an identification of a

file version, a file size, and a hardware type (col 20, lines 55-60, version identifier, required

memory, file type; col 2, lines 5-10, software upgrade for obsolete hardware; col 9, lines 60-65,

each entry included hardware address of mobile terminal). Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to provide the

above teaching of Criss to the method of Shah in view of Hansson in order to update new

application to the mobile stations and assure that all the mobile stations are updated new

applications or features when mobile station is roaming to a visited network.

Regarding claim 22, the method of Shah in view of Hansson does not disclose the data

messages are queued by the common terminal with broadcast messages and reception messages

for communication to the distributed terminals; and the queued messages are communicated in

their respective order of arrival to a queue of the common terminal. However, Criss et al.

discloses the data messages are queued by the common terminal with broadcast messages and

reception messages for communication to the distributed terminals; and the queued messages are

communicated in their respective order of arrival to a queue of the common terminal (see col 13,

lines 55-64,sequentially stepping through each file, transmitting request, downloading; col 1 1,

lines 46-52,one or more mobile terminals). Therefore, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to provide the above teaching of Criss

to the method of Shah in view of Hansson in order to update new application to the mobile

stations and assure that all the mobile stations are updated new applications or features when

mobile station is roaming to a visited network.

4.   Claim 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shah (US

6,029,065) in view of Hansson (WO 98/38820) and further in view of Criss et al. (US 6308061)

and further in view of Onoe et al. (US 5210751).

Regarding to claim 8, the method of Shah in view of Hansson and further in view of Criss

et al. disclose wherein the data messages are stored sequentially (col 13, lines 55-60, sequentially

stepping through each file name listed in the package definition file, request, download, store of

Criss). The method of Shah in view of Hansson and further in view of Criss et al does not

disclose that the data messages are stored sequentially with associated sequential numbers,

except a data message received with an error is stored without the associated sequential number.

The examiner maintains that the concept that the data messages are stored sequentially with

associated sequential numbers, except a data message received with an error is stored without the

associated sequential number was well kmow in the art as taught by Onoe et al.

In a similar field of endeavor, Onoe et al show storing the correctly received data units

with a related message order number and sending incorrectly received data unit information to

the memory circuit (col 12, lines 24-35). Therefore, it would have been obvious to one of

ordinary skill in the art at the time of the invention to modify the method of Shah in view of

Hansson and further in view of Criss et al to show that the data messages are stored sequentially

with associated sequential numbers, except a data message received with an error is stored

without the associated sequential number, as taught by Onoe et al, the motivation being to

provide a signal transmission system which can reliably transmit long messages even if the

transmission paths used have relatively low reliability (Onoe et al, col 2, lines 5-10).

Regarding claim 9, the method of Shah in view in view of Hansson and further in view of

Criss et al and still further in view of Onoe et al does not disclose that the data message received

with the error is identified by the corresponding one of the associated sequential numbers as

being received with an abnormal state and is downloaded again. The examiner maintains that the

concept that the data message received with the error is identified by the corresponding one of

the associated sequential numbers as being received with an abnormal state and is downloaded

again was well known in the art as taught by Onoe et al.

In a similar field of endeavor; Onoe et al show sending incorrectly received data unit

information to the memory circuit to request retransmission (col 12, lines 24-35). Therefore, it

would have been obvious to one of ordinary skill in the art at the time of the invention to modify

the method of Shah in view of Criss et al to show that the data message received with the error is

identified by the corresponding one of the associated sequential numbers as being received with

an abnormal state and is downloaded again, as taught by Criss et al, the motivation being to

provide a signal transmission system which can reliably transmit long messages even if the

transmission paths used have relatively low reliability (Onoe et al, col 2, lines 5-10).

Regarding claim 10, the method of Shah in view of Hansson and further in view of Criss

et al. discloses where the downloaded data messages are all transmitted to the at least one mobile

station (see Criss et al, col 21, lines 23-34, file downloaded to terminal; file transmitted as a

message) and the base station transmits the downloading end message (col 15, lines 58-65, File

Packet is interpreted as download end message as process ends on its reception by mobile

station). Criss et al do not disclose that the downloading end message includes a final sequential

number. The examiner maintains that the concept that the downloading end message includes a

final sequential number was well known in the art as taught by Onoe et al. In a similar field of

endeavor, Onoe et al show storing the correctly received data units with a related message order

number (col 12, lines 24-35). And it is inherent that the last message received, i.e. the

downloading end message will correlate with the final sequential number. Therefore, it would

have been obvious to one of ordinary skill in the art at the time of the invention to modify Criss

et al to show that the downloaded data messages are all transmitted to the at least one mobile

station and the base station transmits the downloading end message, including a final sequential

number, to the at least one mobile station, as taught by the method of the method of Shah in view

of Hansson and further in view of Criss et al., the motivation being to provide a signal

transmission system which can reliably transmit long messages even if the transmission paths

used have relatively low reliability (Onoe et al, col 2, lines 5-10).

5.   Claim 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shah (US

6,029,065) in view of Hansson (WO 98/38820) and further in view of Onoe et al. (US 5210751).

        Regarding claim 16, the method of Shah in view of Hansson does not disclose that the

method further comprises: identifying each of the data messages by a sequential number

contained within the respective data messages; and storing the corresponding sequential number

with each of the stored data messages. The examiner maintains the concept of identifying each of

the data messages by a sequential number contained within the respective data messages; and

storing the corresponding sequential number with each of the stored data messages was well

known in the art as taught by Onoe et al. In a similar field of endeavor, Onoe et al show storing

the correctly received data units with a related message order number (col 12, lines 24-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the method of Shah in view of Hansson to show identifying each of the data

messages by a sequential number contained within the respective data messages; and storing the

corresponding sequential number with each of the stored data messages, as taught by Onoe et al,

the motivation being to provide a signal transmission system which can reliably transmit long

messages even if the transmission paths used have relatively low reliability (Onoe et al, col 2,

lines 5-10).

Regarding claim 17, the method of Shah in view of Hansson does not disclose identifying

each of the data messages by a sequential number contained within the within each of the

respective distributed terminals, the respective data message; storing, corresponding sequential

number with each of the stored data messages that is received without an error; and identifying,

with each of the respective distributed terminals, each of the data messages received with an

error based on the stored sequential numbers, wherein each of the sequential numbers omitted

from storage identifies a corresponding one of the data messages received by the respective

distributed terminal with an error. The examiner maintains that the concept of identifying each of

the data messages by a sequential number contained within the respective data message; storing,

within each of the respective distributed terminals, the corresponding sequential number with

each of the stored data messages that is received without an error; and identifying, with each of

the respective distributed terminals, each of the data messages received with an error based on

the stored sequential numbers, wherein each of the sequential numbers omitted from storage identifies a corresponding one of the data messages received by the respective distributed terminal with an error was well known in the art as taught by Onoe et al.

In a similar field of endeavor, Onoe et al show storing the correctly received data units with a related message order number and sending incorrectly received data tmit information to the memory circuit (col 12, lines 24-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Shah in view of Hansson to show identifying each of the data messages by a sequential number contained within the respective data message; storing, within each of the respective distributed terminals, the corresponding sequential number with each of the stored data messages that is received without an error; and identifying, with each of the respective distributed terminals, each of the data messages received with an error based on the stored sequential numbers, wherein each of the sequential numbers omitted from storage identifies a corresponding one of the data messages received by the respective distributed terminal with an error, as taught by Onoe et al, the motivation being to provide a signal transmission system which can reliably transmit long messages even if the transmission paths used have relatively low reliability (Onoe et al, col 2, lines 5-10).

Regarding claim 18, the method of Shah in view of Hansson does not discloses communicating, with each of the distributed terminals, each of the identified data messages received with an error to the common terminal; and communicating each of the identified data messages received with an error from each of the respective distributed terminals to a system controller. The examiner maintains that the concept of communicating, with each of the

distributed terminals, each of the identified data messages received with an error to the common

terminal; and communicating each of the identified data messages received with an error from

each of the respective distributed terminals to a system controller was well known in the art as

taught by Onoe et al. In a similar field of endeavor, Onoe et al show storing the correctly

received data units with a related message order number and sending incorrectly received data

unit information to the memory circuit for re-transmission (col 12, lines 24-35). Therefore, it

would have been obvious to one of ordinary skill in the art at the time of the invention to modify

the method of Shah in view of Hansson to show communicating, with each of the distributed

terminals, each of the identified data messages received with an error to the common terminal;

and communicating each of the identified data messages received with an error from each of the

respective distributed terminals to a system controller, as taught by Onoe et al, the motivation

being to provide a signal transmission system which can reliably transmit long messages even if

the transmission paths used have relatively low reliability (Onoe et al, col 2, lines 5-10).

     Regarding claim 19, the method of Shah in view of Hansson does not disclose

communicating the identified data messages, received by the respective distributed terminals

with an error, to the respective distributed terminals again.

     In a similar field of endeavor, Onoe et al show storing the correctly received data units

with a related message order number and sending incorrectly received data unit information to

the memory circuit for re-transmission (col 12, lines 24-35). Therefore, it would have been

obvious to one of ordinary skill in the art at the time of the invention to modify the method of

Shah in view of Hansson to show communicating the identified data messages, received by the

respective distributed terminals with an error, to the respective distributed terminals again, as

taught by Onoe et al, the motivation being to provide a signal transmission system which can reliably transmit long messages even if the transmission paths used have relatively low reliability (Onoe et al, col 2, lines 5-1).

Conclusion

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Q. Nguyen whose telephone number is 571-272-7844. The examiner can normally be reached on 8:30AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOSEPH H. FEILD can be reached on (571)272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

David Q Nguyen
Examiner
Art Unit 2617